USGS science for a changing world

Earthquake Shaking **Orange** Alert

GSN ANSS USAID FROM THE AMERICAN PEOPLE

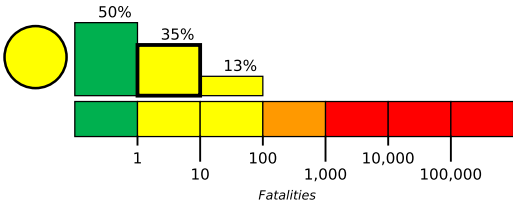
# M 6.0, 86km ENE of Arzak, China

Origin Time: 2020-01-19 13:27:56 UTC (Sun 19:27:56 local)
Location: 39.8309° N 77.1064° E Depth: 6.3 km

**PAGER Version 7**

Created: 1 day, 6 hours after earthquake

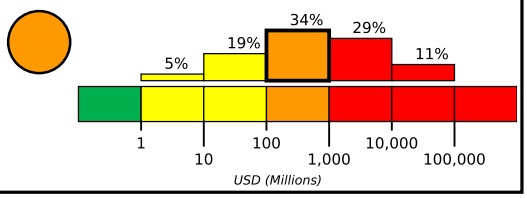
## Estimated Fatalities




Orange alert for economic losses. Significant damage is likely and the disaster is potentially widespread. Estimated economic losses are less than 1% of GDP of China. Past events with this alert level have required a regional or national level response.

Yellow alert for shaking-related fatalities. Some casualties are possible.

## Estimated Economic Losses

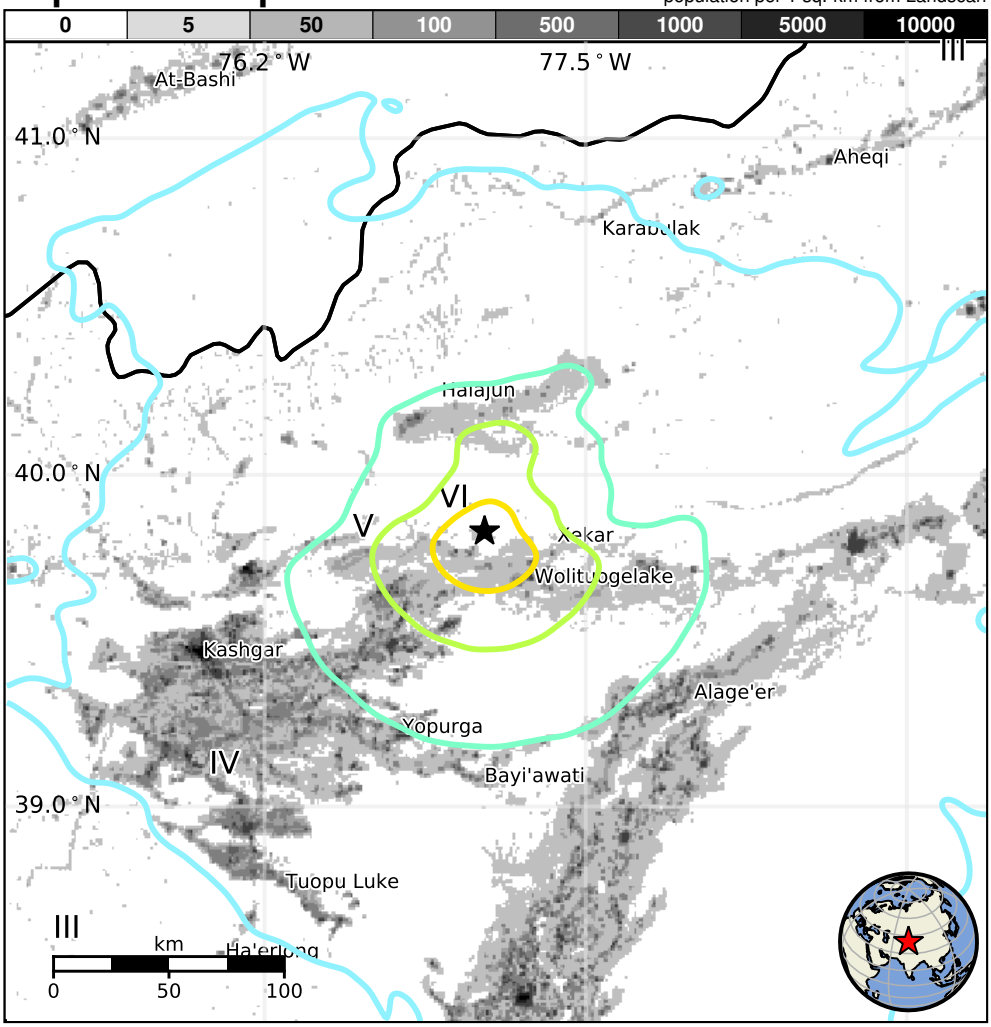



## Estimated Population Exposed to Earthquake Shaking

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED POPULATION EXPOSURE (k=x1000) | | –* | 88k* | 3,402k | 329k | 106k | 28k | 0 | 0 | 0 |
| ESTIMATED MODIFIED MERCALLI INTENSITY | | I | II-III | IV | V | VI | VII | VIII | IX | X+ |
| PERCEIVED SHAKING | | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| POTENTIAL DAMAGE | Resistant Structures | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| | Vulnerable Structures | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

*Estimated exposure only includes population within the map area.

## Population Exposure




### Structures

Overall, the population in this region resides in structures that are vulnerable to earthquake shaking, though resistant structures exist. The predominant vulnerable building types are adobe block and concrete/cinder block masonry construction.

### Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|---|---|---|---|---|
| 1996-03-19 | 41 | 6.3 | VII(11k) | 24 |
| 1993-11-30 | 148 | 5.6 | VIII(1k) | 2 |
| 2003-02-24 | 36 | 6.3 | VIII(3k) | 261 |

Recent earthquakes in this area have caused secondary hazards such as landslides and liquefaction that might have contributed to losses.

### Selected City Exposure

from GeoNames.org

| MMI | City | Population |
|---|---|---|
| VII | Guleluke | <1k |
| **VI** | **Wolituogelake** | **<1k** |
| **VI** | **Xekar** | **<1k** |
| VI | Kizilsu | <1k |
| VI | Hexia'awati | <1k |
| V | Gedaliang | <1k |
| V | Yingmaili | <1k |
| V | Tierimu | <1k |
| **IV** | **Kashgar** | **275k** |
| IV | Shache | 83k |
| **III** | **At-Bashi** | **15k** |

bold cities appear on map. (k=x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

**https://earthquake.usgs.gov/earthquakes/eventpage/us60007anp#pager**

**Event ID: us60007anp**